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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,563	04/26/2001	Mark A. Lucak	00AB179	9460

7590 04/24/2003

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EXAMINER

COLEMAN, WILLIAM D

ART UNIT

PAPER NUMBER

2823

DATE MAILED: 04/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/843,563

Applicant(s)

LUCAK ET AL.

Examiner

W. David Coleman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) 10-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 40 is/are rejected.
- 7) ☒ Claim(s) 41-47 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3. 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of group I invention, claims 1-9 in Paper No. 5 is acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-9 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Albrecht et al., U.S. Patent 5,399,232.
4. Pertaining to claim 1, Albrecht discloses a semiconductor process as claimed. See FIGS. 1-26 where Albrecht teaches a method of fabricating a MEMS structure, comprising the steps of
 - (a) forming a recess **18** in an upper surface of a substrate;
 - (b) attaching an etchable wafer **30** to the upper surface of the substrate, including a wafer portion from which a movable structure will be formed, the wafer portion being positioned over the recessed; and
 - (c) etching downward in the wafer around the periphery of the movable portion to break through in to the recess, thereby releasing at least part of the movable structure from the substrate without the need for substantial undercutting (see FIGS. 10, 11 and 12).

5. Pertaining to claim 2, Albrecht teaches the method as recited in claim 1, further comprising depositing a conductive layer **32** onto the wafer.

6. Pertaining to claim 3, Albrecht teaches the method as recited in claim 2, further comprising depositing a protective layer **56** (as seen I FIG. 18) onto an upper surface of the conductive layer **54**.

Pertaining to claim 4, Albrecht teaches the method as recited in claim 2, wherein the conductive layer is selected from the group consisting of aluminum, copper, silver, gold and nickel.

7. Pertaining to claim 5, Albrecht teaches the method as recited in claim 3, wherein the protective layer is selected from the group consisting of silicon dioxide and silicon nitride.

8. Pertaining to claim 6, Albrecht teaches the method as recited in claim 1, wherein the wafer is selected from the group consisting of silicon, silicon carbide and gallium arsenide.

9. Pertaining to claim 7, Albrecht teaches the method as recited in claim 1, wherein the substrate is a non conductive substrate selected from the group consisting of glass, high resistivity silicon, crystalline sapphire, and ceramic.

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10. Pertaining to claim 8, Albrecht teaches the method as recited in claim 1, wherein the substrate is a conductive substrate selected from the group consisting of silicon, silicon carbide, and gallium arsenide.

11. Pertaining to claim 9, Albrecht teaches the method as recited in claim 1, wherein the recess has beveled edges.

12. Pertaining to claim 40, Albrecht teaches the method as recited in claim 1, wherein step(c) further comprises forming a first stationary conductive element extending outwardly from the substrate (see FIG. 14).

Objections

13. Claims 41-47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to W. David Coleman whose telephone number is 703-305-0004.

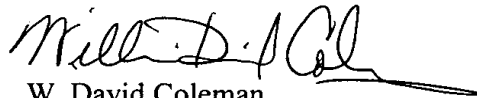
The examiner can normally be reached on 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on 703-306-2794. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

A handwritten signature in black ink, appearing to read "W. David Coleman", with a horizontal line extending from the end of the signature.

W. David Coleman
Primary Examiner
Art Unit 2823

WDC
April 12, 2003